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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/812,205	03/19/2001	Jurgen Bieber	2001P 09995 US	9617

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EXAMINER	
ZHEN, LI B	

ART UNIT	PAPER NUMBER
2126	

DATE MAILED: 10/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/812,205	BIEBER, JURGEN	
	Examiner	Art Unit	
	Li B. Zhen	2126	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 July 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 4-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 4-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1, 2 and 4 – 6 are pending in the application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1, 2, and 4 – 6 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,167,464 to Kretschmann.**

4. As to claim 1, Kretschmann teaches a method of independent process control [an industrial control system for controlling the operation of a process executed on a plurality of separate machines; col. 2, lines 23 – 65] comprising the steps of:

providing an automated production process [industrial control system; col. 4, lines 25 – 33] control program [control program] on a network server [a control program executing on the central processor 12 to control and coordinate the machines 18 by means of electrical input and output signals; col. 4, lines 25 – 45];

deploying a plurality of parallel instances [upon identification of the HMI 28 by the central processor 12, the central processor 12 may identify one or more applications

(using a matrix 66) to be downloaded to the HMI; col. 7, lines 20 – 33] of the control program to a respective plurality of thin client terminals [portable HMI] over a network [portions of the task 64 may be loaded into the portable HMI 28 as the applications 48 after a task has been identified; col. 6, lines 43 – 67]; and

independently controlling a process from each of the plurality of thin terminals [an industrial control system for controlling the operation of a process executed on a plurality of separate machines; col. 2, lines 23 – 65], thereby providing multiple terminal server-client operation [mobile human machine interface for a monitoring operation of a spatially distributed control system in a factory; see abstract].

5. As to claim 2, Kretschmann teaches an intermediate software layer for creating the plurality of instances of the control program [the processor 12 receives the location data from the tag 26 and the user identification code...the column associated with the particular machine identified by the tag 26 will be referred to and a task identified making an assumption of a default user...The particular task 64 will then be executed to transmit to the portable HMI 28 the necessary I/O or control program information associated with that particular machine 18 identified and the task selected by the matrix 66; col. 6, lines 1 – 35].

6. As to claim 4, Kretschmann teaches the plurality of the clients utilize at least one of a plurality of different operating systems [memory 42 of the HMI 28 holds a compact

operating system 46 such as the Windows CE type operating system manufactured by Microsoft Corporation; col. 5, lines 1 – 12].

7. As to claim 5, Kretschmann teaches the plurality of different operating systems comprise Windows [memory 42 of the HMI 28 holds a compact operating system 46 such as the Windows CE type operating system manufactured by Microsoft Corporation; col. 5, lines 1 – 12], Linux, Unix, and Macintosh operating systems.

8. As to claim 6, Kretschmann teaches at least one of the plurality of client terminals is a flying client having a wireless connection to the network [the portable HMI 28 includes a first radio antennae 31 for communicating with the transceiver 30 via an RF link 29 and a second radio antenna 32 communicating with the tag 26; col. 4, lines 50 – 62].

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

10. **Claims 1, 2 and 4 – 5 are rejected under 35 U.S.C. 102(a) as being anticipated by "Software Models for Standardizing the Human-Machine Interface Connection to a Machine Controller" (hereinafter Michaloski).**

11. As to claim 1, Michaloski teaches a method of independent process control [in manufacturing, the Human Machine Interface (HMI) handles the connection between the human and a machine controller... HMI is responsible for supervisory command and control as well as status monitoring; Background, p. 1] comprising the steps of:

providing an automated production [in manufacturing, the Human Machine Interface (HMI) handles the connection between the human and a machine controller; Background, p. 1] process control program on a network server [each Controller component provides its own data services through a proxy server; Distributed Components, p. 6 – 7];

deploying a plurality of parallel instances of the control program [In a distributed component-based approach, the HMI could directly access any Controller component; Distributed Components, p. 6 – 7] to a respective plurality of thin client terminals over a network [A distributed approach assumes that each Controller component exposes COM interface; p. 7, 1st paragraph]; and

independently controlling a process from each of the plurality of thin terminals [primary benefit to the decentralized COM components would be to increase in reusability of components; p. 7, 2nd paragraph], thereby providing multiple terminal server-client operation [since COM components are location transparent, the HMI can bind to a COM component anywhere, be it in-process, local-process, or remote process; p. 7, 1st paragraph].

12. As to claim 2, Michaloski teaches an intermediate software layer for creating the plurality of instances of the control program [component-based software can be created using many different programming languages...Component based technology, such as the Component Object Model (COM) or the Common Object Request Broker Architecture (CORBA), would allow an HMI to communicate with the Controller in a programming language-independent, object-oriented manner. The API are defined in a neutral programming language, such as the Interface Definition Language (IDL) and translated into the different programming languages; Component Solutions, p. 5].

13. As to claims 4 and 5, Michaloski teaches the plurality of the clients utilize at least one of a plurality of different operating systems [HMI API's should be platform independent; p. 3, 2nd paragraph] and the plurality of different operating systems comprise Windows [ActiveX components are network independent and can be used in Windows applications; Distributed Components with Presentation Views, p. 7], Linux, Unix [Unix shared library; Legacy Solutions, p. 3], and Macintosh operating systems.

Response to Arguments

14. Applicant's arguments filed July 14, 2004 have been fully considered but they are not persuasive.

In response to the Non-Final Office Action mailed on 4/16/2004, applicant argues: (1) Kretschmann disclose a system and a method in which the HMI may not hold any application programs, but instead, upon identification of the HMI by the central

process, the central processor may identify one or more applications to be downloaded to the HMI [p. 5, lines 3 – 6] and (2) the feature of parallel instances of a control program is not disclosed in Michaloski [p. 5, lines 13 – 14].

As to argument (1), examiner respectfully disagrees and submits that the applicant is relying on an alternative embodiment of Kretschmann. For example, Kretschmann clearly discloses storing applications programs on each HMI [e.g. col. 5, lines 7 – 12]. Even in the alternative embodiment, Kretschmann supports permanently storing downloaded applications on a HMI [downloaded application will be temporary or permanent; e.g. col. 7, lines 27 – 31]. When the control programs [application programs 48] of Kretschmann are deployed [downloaded] to the thin client terminals [HMI 28], the applications could be temporarily or permanently stored [e.g. col. 7, lines 1 – 33]. Therefore, Kretschmann teaches deploying a plurality of parallel instances of the control program to a respective plurality of thin client terminal over a network. As to the applicant's statement, "this is completely different from the system of the present application in which a number of parallel instances of the same **control program are deployed on a central server** and thus available for thin clients" [emphasis added, p. 5, lines 10 – 12], examiner respectfully notes that this is not brought out in the claims because the claims recite deploying instances of the control program to a plurality of thin clients.

In response to argument (2), examiner respectfully disagrees and notes that Michaloski teaches a HMI can bind to Controller components that expose a COM interface as a local-process [e.g., p. 7, 1st paragraph] which would suggest the

Controller component is locally stored on the HMI. As to parallel instances of a control program, Michaloski teaches controller objects [e.g., p. 5, Component Solutions].

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Li B. Zhen
Examiner
Art Unit 2126

lbz

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